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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,251	03/17/2005	Hjalmar E A Huitema	NL02 0872 US	4131
24738 7590 08/29/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS PO BOX 3001 BRIARCLIFF MANOR, NY 10510-8001				
EXAMINER				
NGUYEN, KIMHUNG T				
ART UNIT		PAPER NUMBER		
2629				
MAIL DATE		DELIVERY MODE		
08/29/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,251

Applicant(s)

HUITEMA ET AL.

Examiner

KIMNHUNG NGUYEN

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This application has been examined. The claims 1-20 are pending. The examination results are as following.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9, 11 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (US 6,677,709) in view of Chen (US 6,717,847).

Regarding claim 1, Ma et al. teach the control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volts, but may be more or less depending on the characteristics of the OLED (see Fig.1), and the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52) wherein depending on the brightness of the OLED, the adjustment is going to repeat to keep the luminance of the OLED constant. The prior art does not specifically teach the adjustment means is set to adjust the applied voltages in response to the measured cell gap. Chen discloses in fig. 11, the adjustment means is set to adjust the applied voltages in response to the measured cell gap (see col. 9, lines 3-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the adjustment means is set to adjust the applied

voltages in response to the measured cell gap as taught by Chen into the system of Ma et al. for producing the claimed invention because this would allow some reading of the distributions from disturbs and the like (see col. 9, lines 7-9).

Regarding claims 6, 7, 9, and 11, they are rejected on the same ground as claim 1.

Regarding claim 14, Ma et al. teach resiliently flexible display that exhibits the advantages of organic light emitting device technology and avoids the disadvantages conventional devices, such as excessive cross talk (column 2, lines 33-36).

Regarding claim 15, Ma et al. teach a portable digital assistant (PDA) (column 1, line 21).

Regarding claim 16 is rejected as the same as claim 1.

Regarding claims 3 and 18, Ma et al. teach the duty cycle of the OLED, and hence its brightness, can be controlled (column 5, lines 49-52).

Regarding claims 2 and 17, Ma et al. teach the duty cycle of the OLED, and hence its brightness, can be controlled. Alternatively, by regulating the magnitude of the control voltage applied to the OLED, the brightness of the OLED can be adjusted (column 5, lines 49-52).

Regarding claim 4 and 19, Ma et al. teach The OLED can thus be switched on an off by applying an activating voltage to the first conductive layer 170 while supplying a control voltage to the second conductive layer 190. The activating voltage used to bend the cantilever 210 by electrostatic attraction may be on the order of 10-100 volts, for

example, but may be varied as desired according to the stiffness of the cantilever 210. The control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volts, but may be more or less depending on the characteristics of the OLED (column 5, lines 39-48).

Regarding claims 5 and 20, Ma et al. teach the control voltage applied by the second conductive layer 190 across the OLED is typically 2-10 volt (see Fig. 1).

4. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (US 6,677,709) and in view of Chen (US 6,717,847) and further in view of Irvin (US 6,876,723)

Regarding claims 8 and 10, Ma et al. and Chen do not disclose that at least one measurement means is arranged within at least one lithographic spacer or at least one piezoelectric crystal. Irvin et al. teach the liquid ink droplets are ejected from the nozzle using pressure pulses generated by an oscillating piezoelectric crystal or by heating the nozzle to generate an ink droplet resulting from bubble formation or from ink phase change (column 2, lines 13-17) and a multicolor display device, comprising a transparent substrate, electroluminescent materials deposited via an inkjet printing mechanism into wells that are defined by masks produced via a lithographic technique (column 2, lines 27-31). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the piezoelectric crystal and lithographic as taught by Irvin et al. in the system disclosed by Ma et al. and Chen because this would the compositions are used to create a high-resolution pattern or image onto a substrate for imaging and display applications.

Allowable Subject Matter

5. Claims 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the cited art teaches or suggests that the flexible display comprising a plurality of pixels, and plurality of conductors and wherein the measurement means are set to measure the cell gap at a part of the display by measuring the time which is required for charging a pixel when a constant voltage is supplied on an associated conductor as claim 12; or wherein the measurement means are set to deduce the cell gap by supplying an AC-signal to a row conductor, measuring the amplitude of the signal on the column conductors and compare it with the amplitude of the signal which is supplied on an associated conductor.

Response To Arguments

6. Applicant's arguments with respect to claims 1-20 filed 6/4/2008 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMNHUNG NGUYEN whose telephone number is (571)272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kimnhung Nguyen/
Examiner, Art Unit 2629
August 25, 2008

/Richard Hjerpe/
Supervisory Patent Examiner, Art Unit 2629